

## **APPENDIX II**

# **Gravity Maps of South-Central China**

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editor

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## Appendix II. Gravity maps of south-central China

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Folder II-grav\_maps. Plates of individual 4° high by 6° long, 1:1,000,000-scale, gravity maps [11 sheets].

### Map history and processing

The Tianjin Geological Academy of the People's Republic of China provided 11 paper maps of colored gravity contour data. The maps included localities in south and central China where sedimentary rock-hosted Au deposits are present, such as the Dian-Qian-Gui (Chapter 3) Qinling fold belt (Chapter 4), and the Middle-Lower Yangtze River (Chapter 5). Figure II-A is an index of the gravity maps. The original maps were 4° high by 6° long and had a map scale of 1:1,000,000, and were in Lambert Conic Orthomorphic projection. The projection information for each is as follows:

<b>Projection:</b>	Lambert Conic Orthomorphic
<b>Central Meridian:</b>	= (Westernmost Longitude + Easternmost Longitude) / 2
<b>Reference Latitude:</b>	= Southernmost Latitude ( <i>i.e.</i> base)
<b>Standard Parallels:</b>	1 <sup>st</sup> = Base + 1 degree 2 <sup>nd</sup> = Base + 3 degrees
<b>Spheroid:</b>	Krasovsky (1940)

The projection information indicates that each map is the center of its own projection, with its base as the reference latitude and the central meridian as the middle longitudinal line. This singular projection caused difficulty in fitting the maps together.

The original maps were individually scanned and saved as \*.tif and then converted to \*.jpg files. The scans were then imported into Adobe Photoshop v. 6.0 and the collars were removed using the clipping tool. The new images were then imported into a geographic information system (GIS) ArcView 3.2 where they were georeferenced and mosaiced using the ArcView Image Analyst v. 2.0 extension. Because the central meridian is the center of each map, the edges of the maps (meridians) converge toward the middle of each map with increasing latitude. The unique projection parameters of the individual maps cause the edges of the images to misalign. This is represented by small triangular-shaped gaps between each adjacent map as illustrated in figures II-A, II-B and II-C.

Individual gravity mosaic maps of the Qinling fold belt, Dian-Qian-Gui, and Middle-Lower Yangtze River areas are located on figure II-D and separate mosaics were cut and overlayed with geology and sedimentary rock-hosted Au deposit occurrence locations (figs. II-E, II-F, II-G, II-H, II-I, II-J, II-K, II-L, and II-M). Images of the individual gravity maps images also are provided (folder II-mag\_maps).

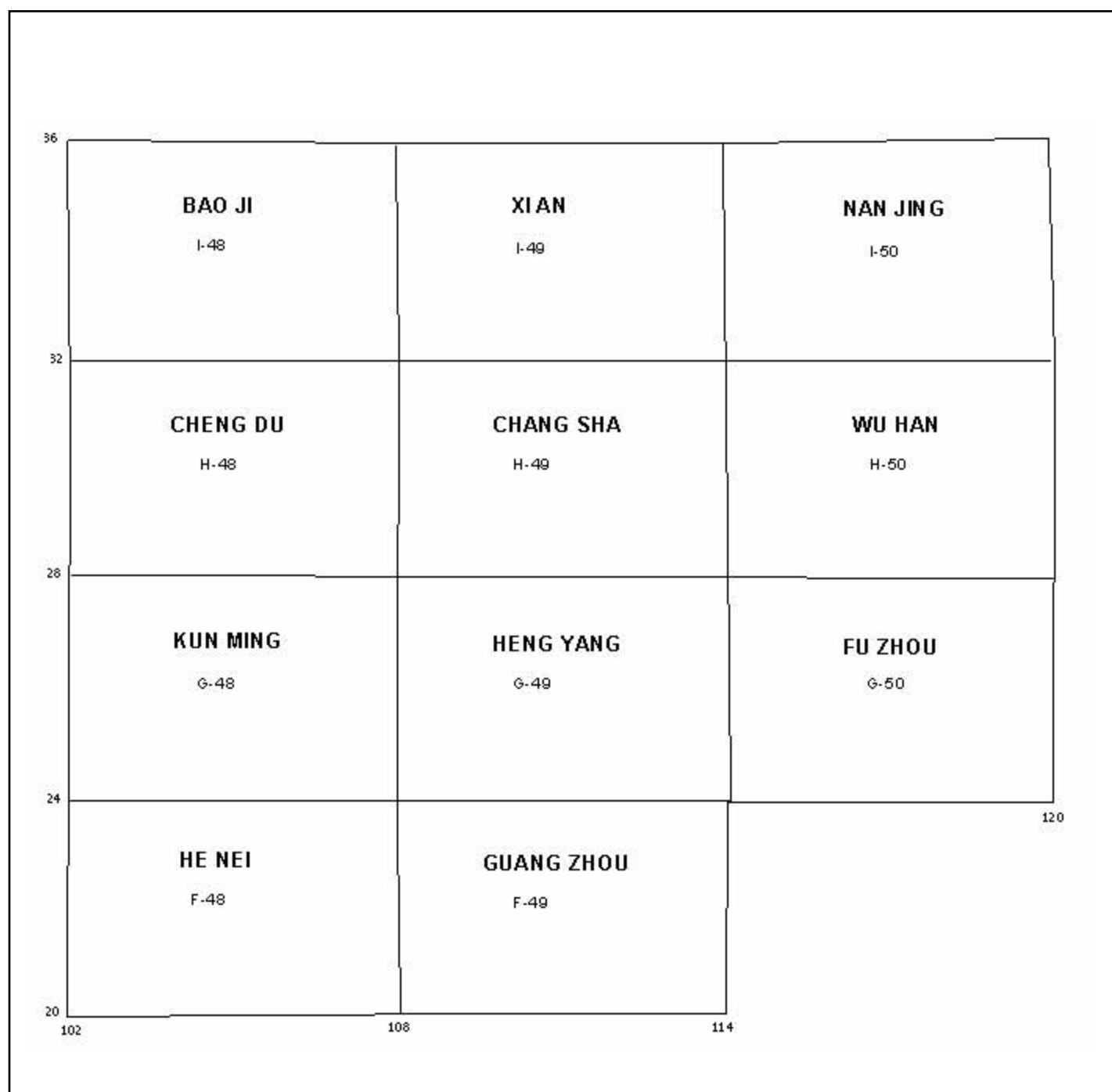


Figure II-A. General index of map name and numbers of gravity maps.





Figure II-B. Mosaic and index as inset, showing location of gravity map coverage in Appendix I in China.

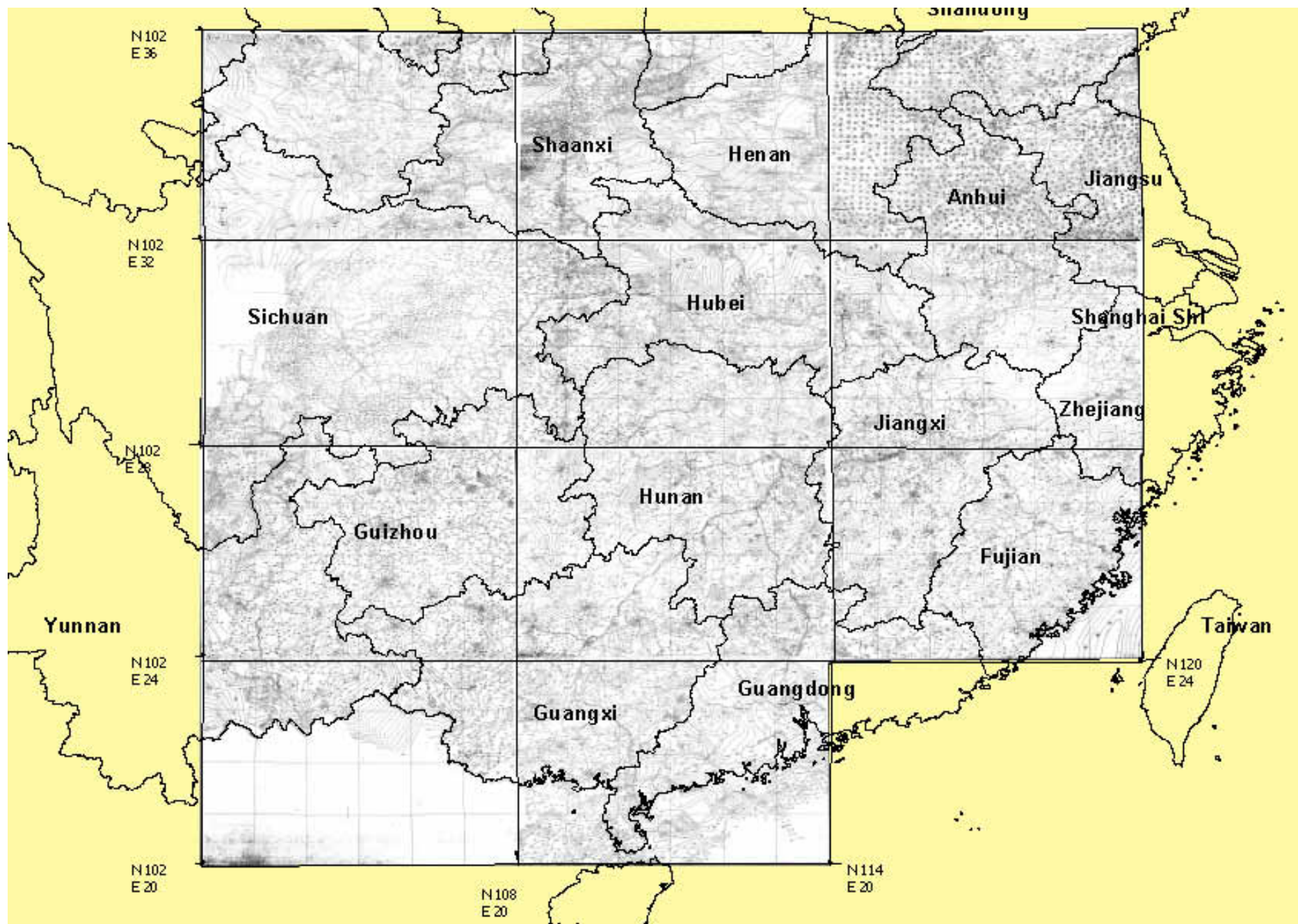


Figure II-C. Mosaic and index of contoured gravity maps (see also, figs. II-A and II-B).



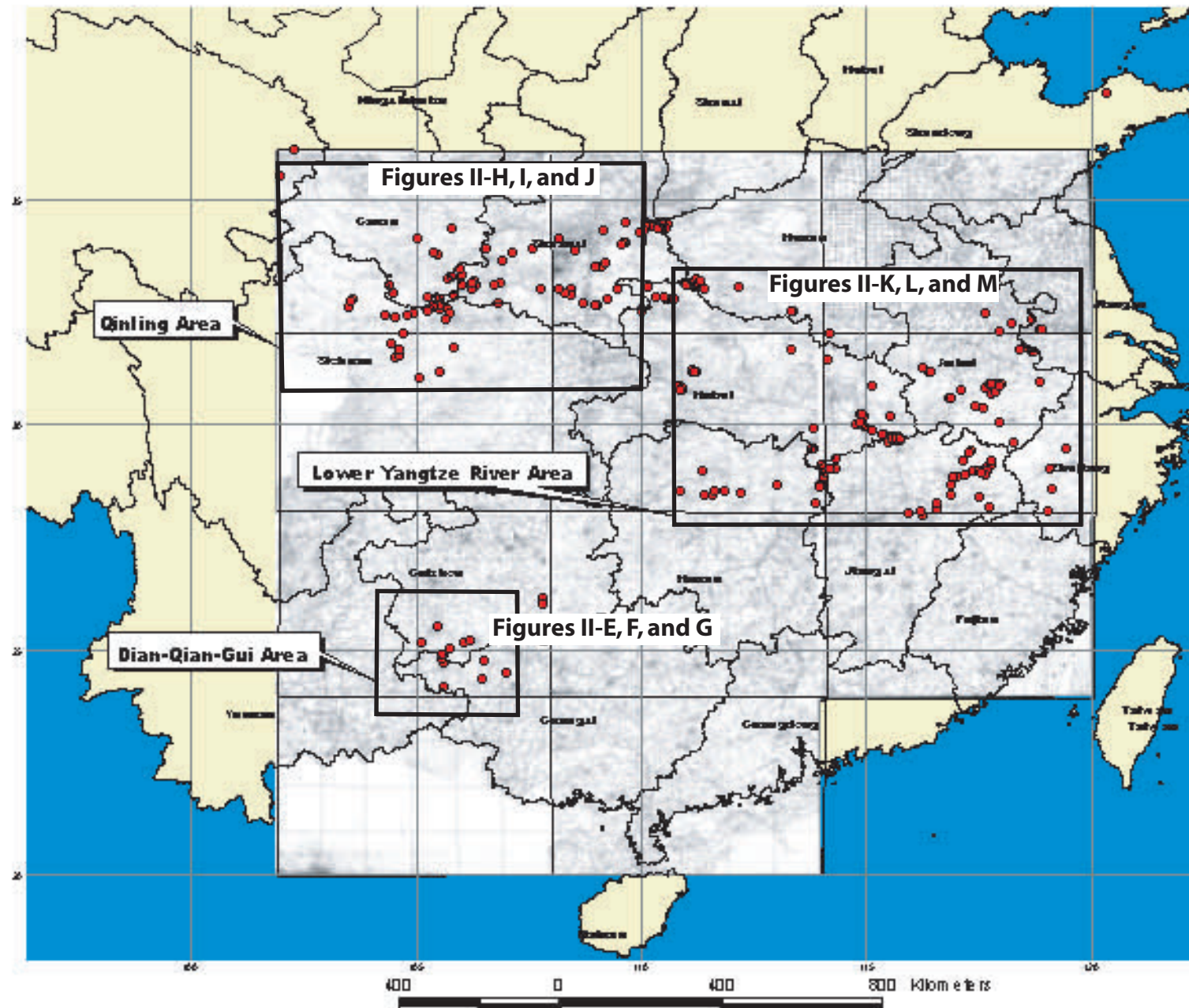


Figure II-D. Mosaic gravity map showing outline of Dian-Qian-Gui, Qinling fold belt, and Middle-Lower Yangtze river areas and locations of figures II-E, F, G, H, I, J, K, L, and M.

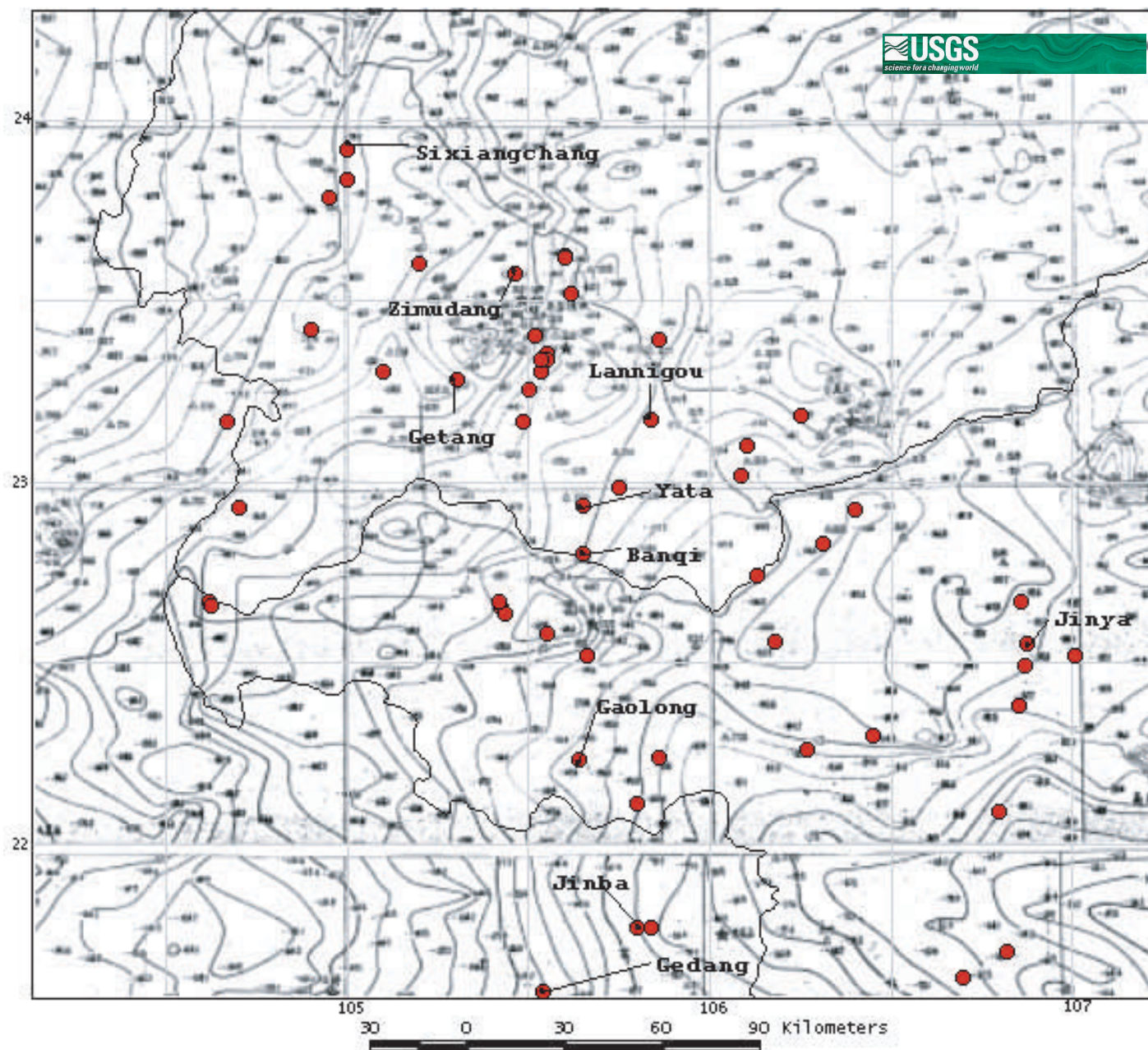


Figure II-E. Gravity contour map mosaic of the Dian-Qian-Gui area with labeled sedimentary rock-hosted Au deposits discussed in Chapter 3.



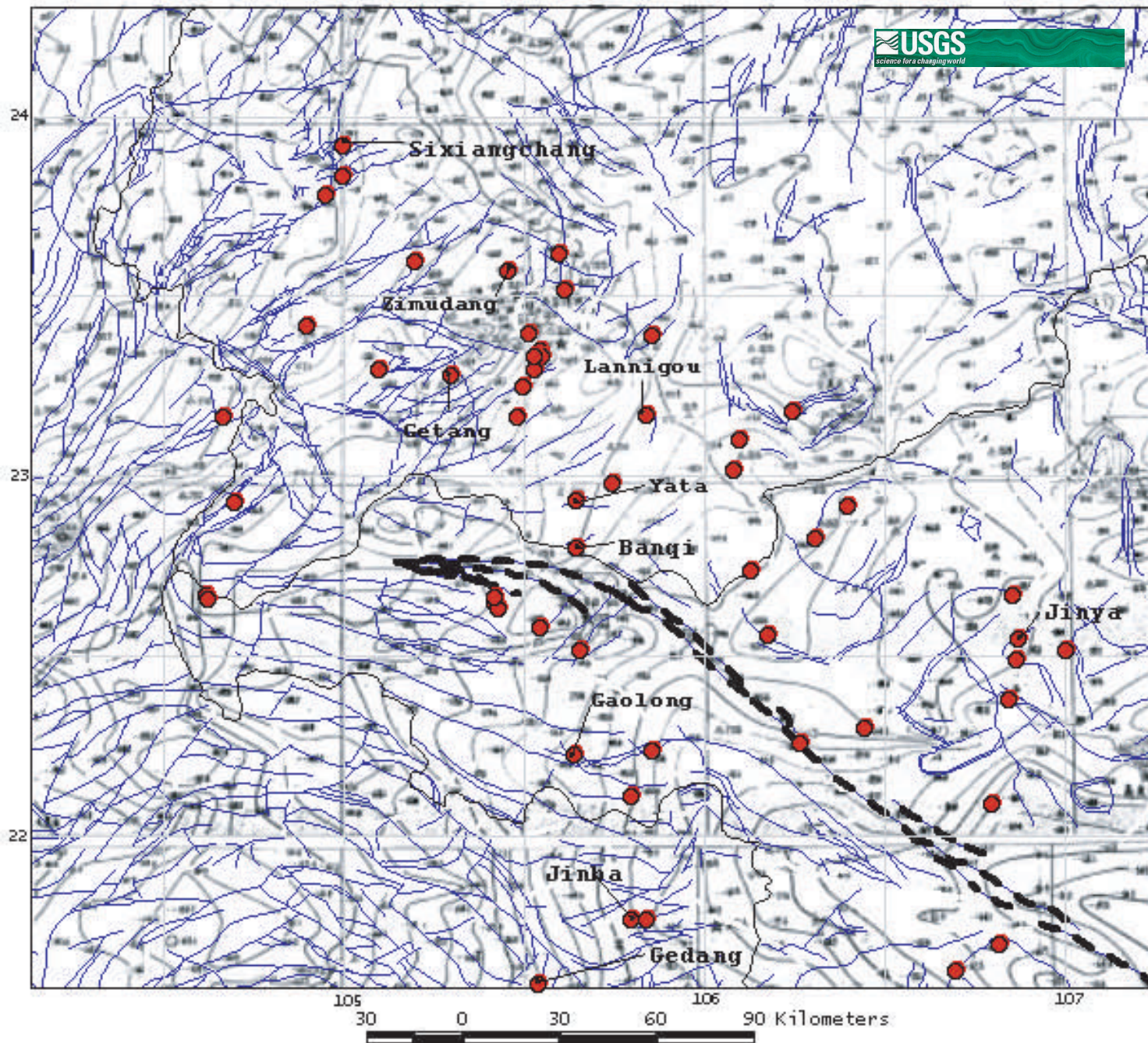


Figure II-F. Gravity contour map mosaic of the Dian-Qian-Gui area with labeled sedimentary rock-hosted Au deposits discussed in Chapter 3, showing major faults.



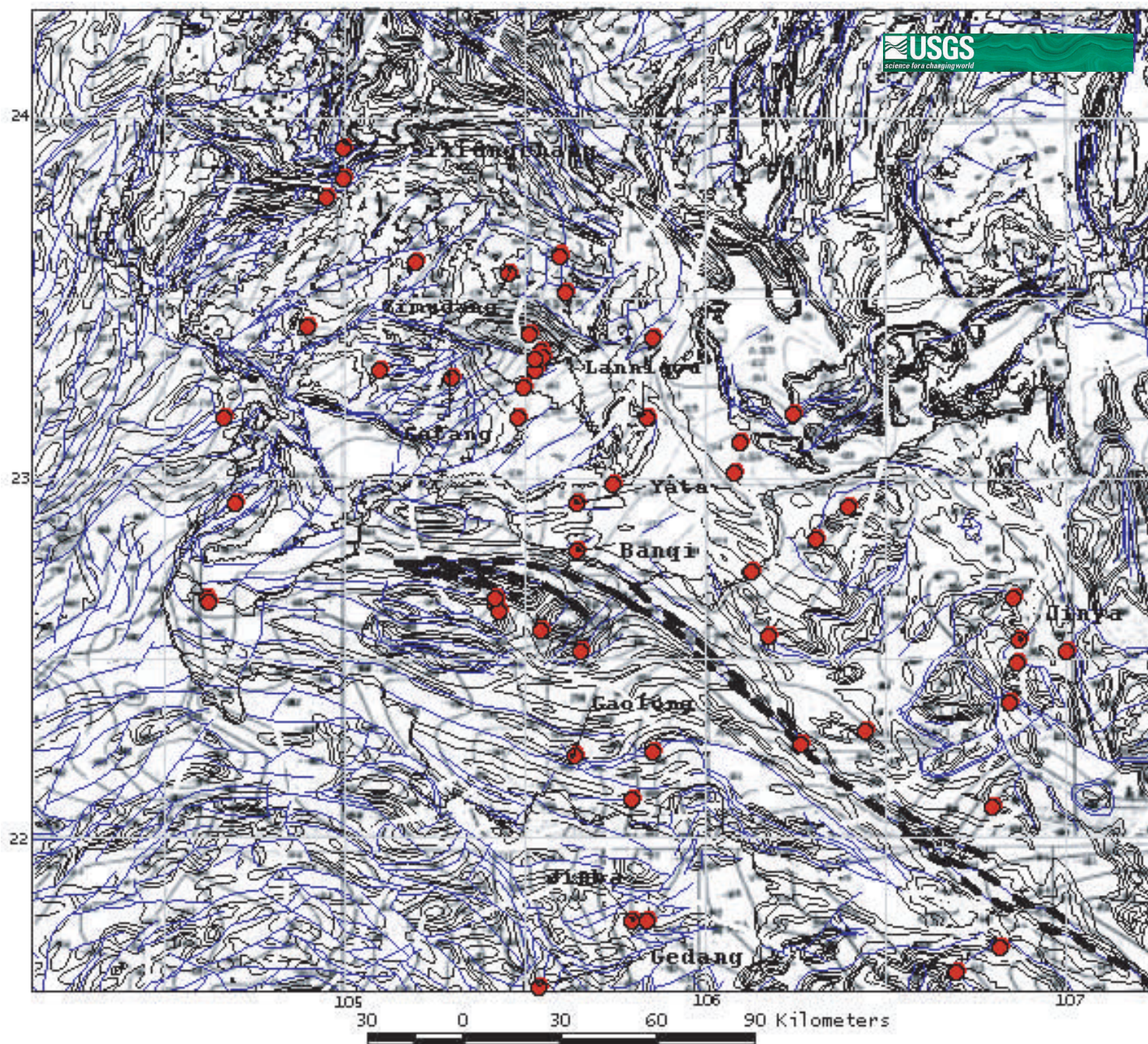


Figure II-G. Gravity contour map mosaic of the Dian-Qian-Gui area with labeled sedimentary rock-hosted Au deposits discussed in text, with major faults and major lithologic contacts.



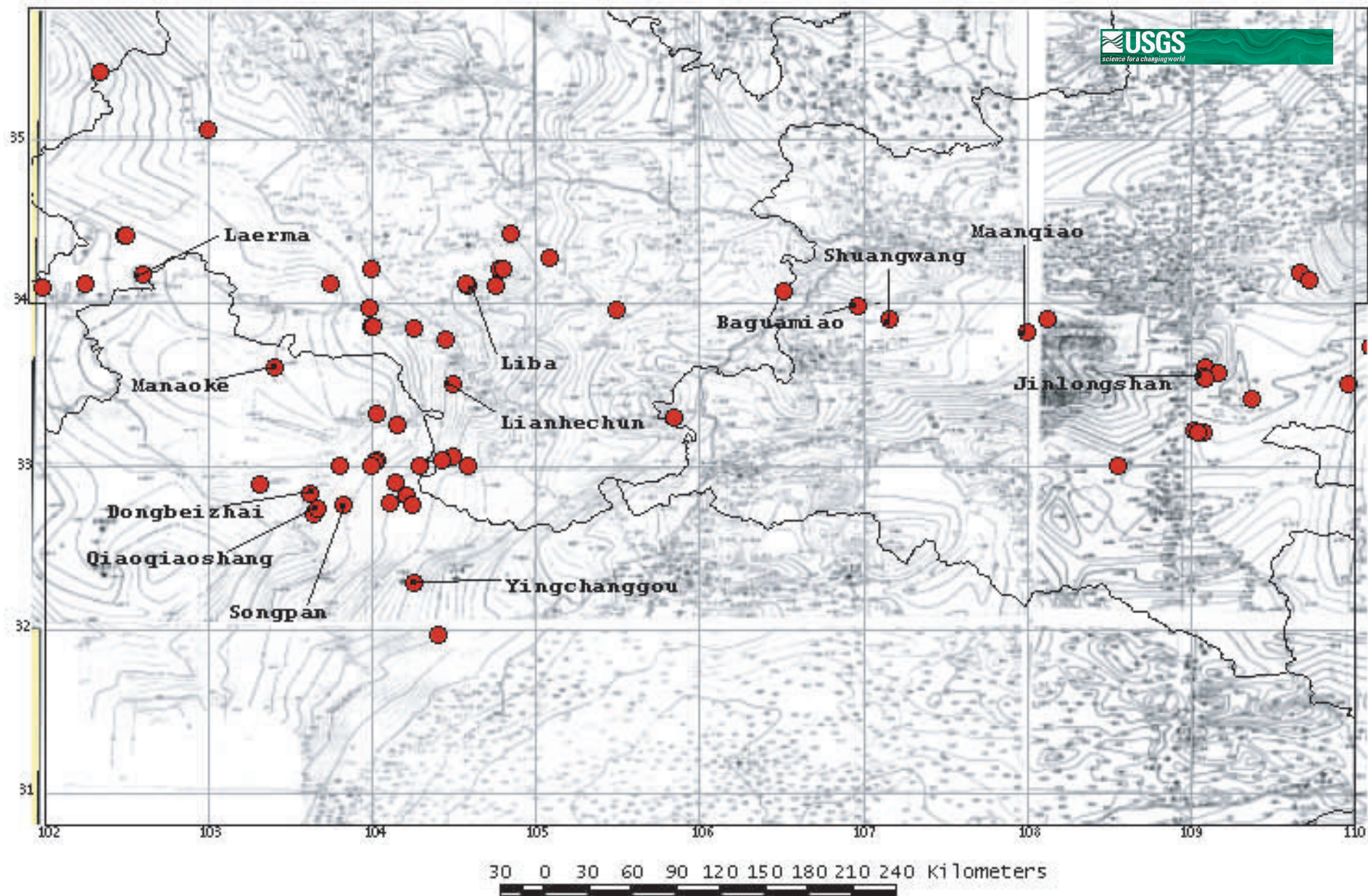


Figure II-H. Gravity mosaic contour map of the Qinling fold belt area with sedimentary rock-hosted Au deposits discussed in Chapter 4.



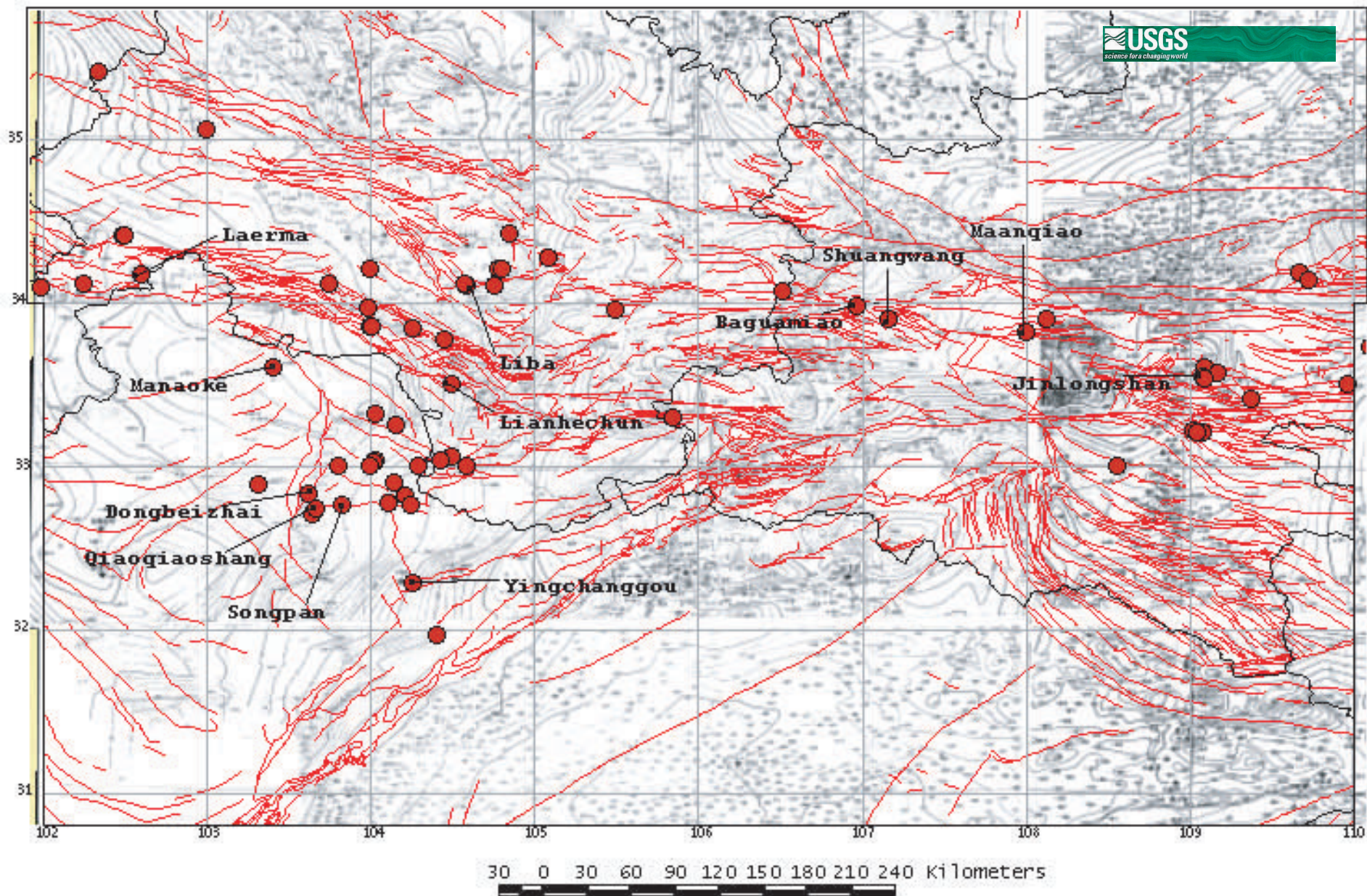


Figure II-I. Gravity mosaic contour map of the Qinling fold belt area with labeled sedimentary rock-hosted Au deposits discussed in Chapter 4, showing major faults and shear zones.



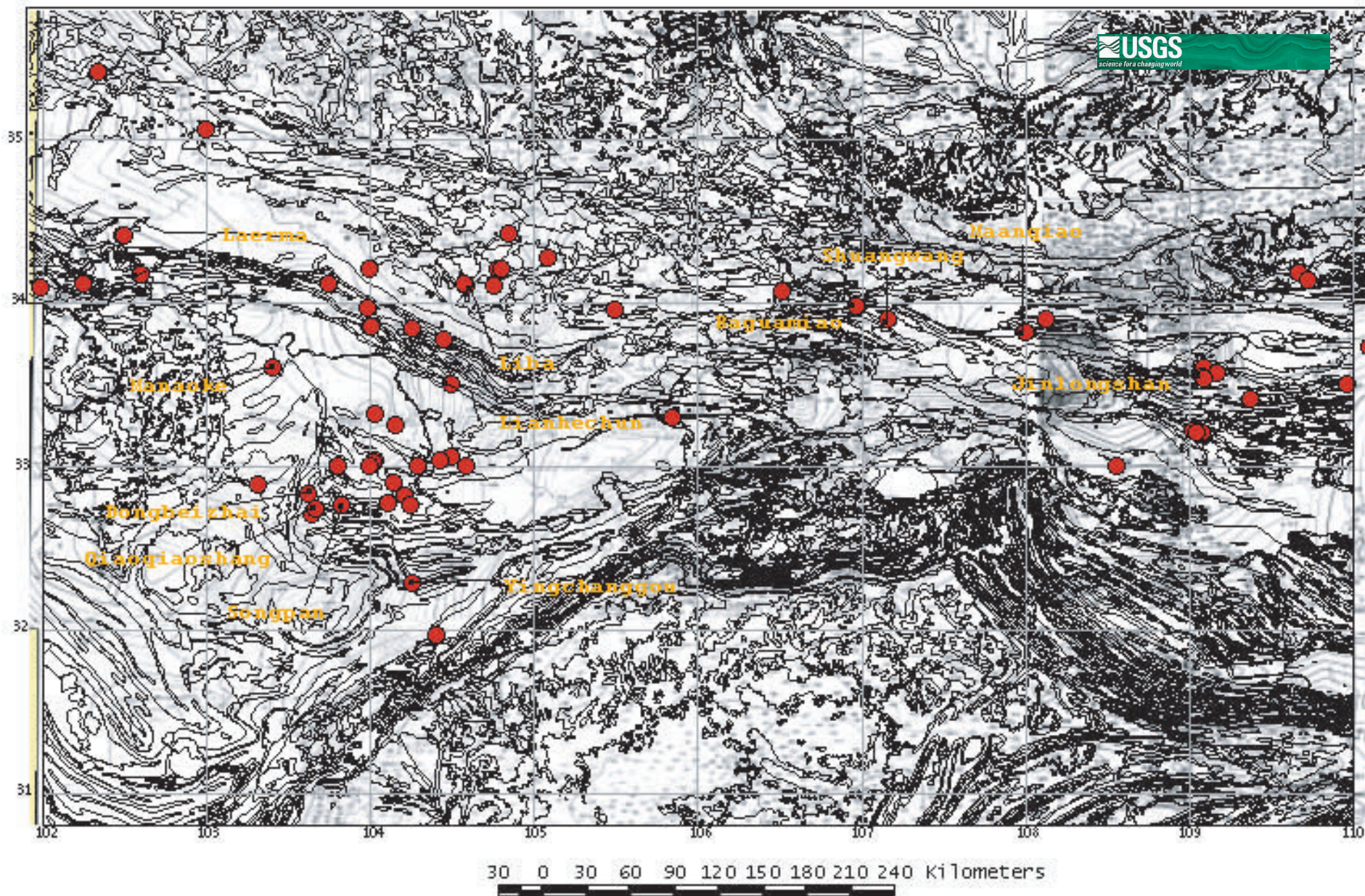


Figure II-J. Gravity mosaic contour map of the Qinling fold belt area with labeled sedimentary rock-hosted Au deposits discussed in Chapter 4, with geologic unit outlines.



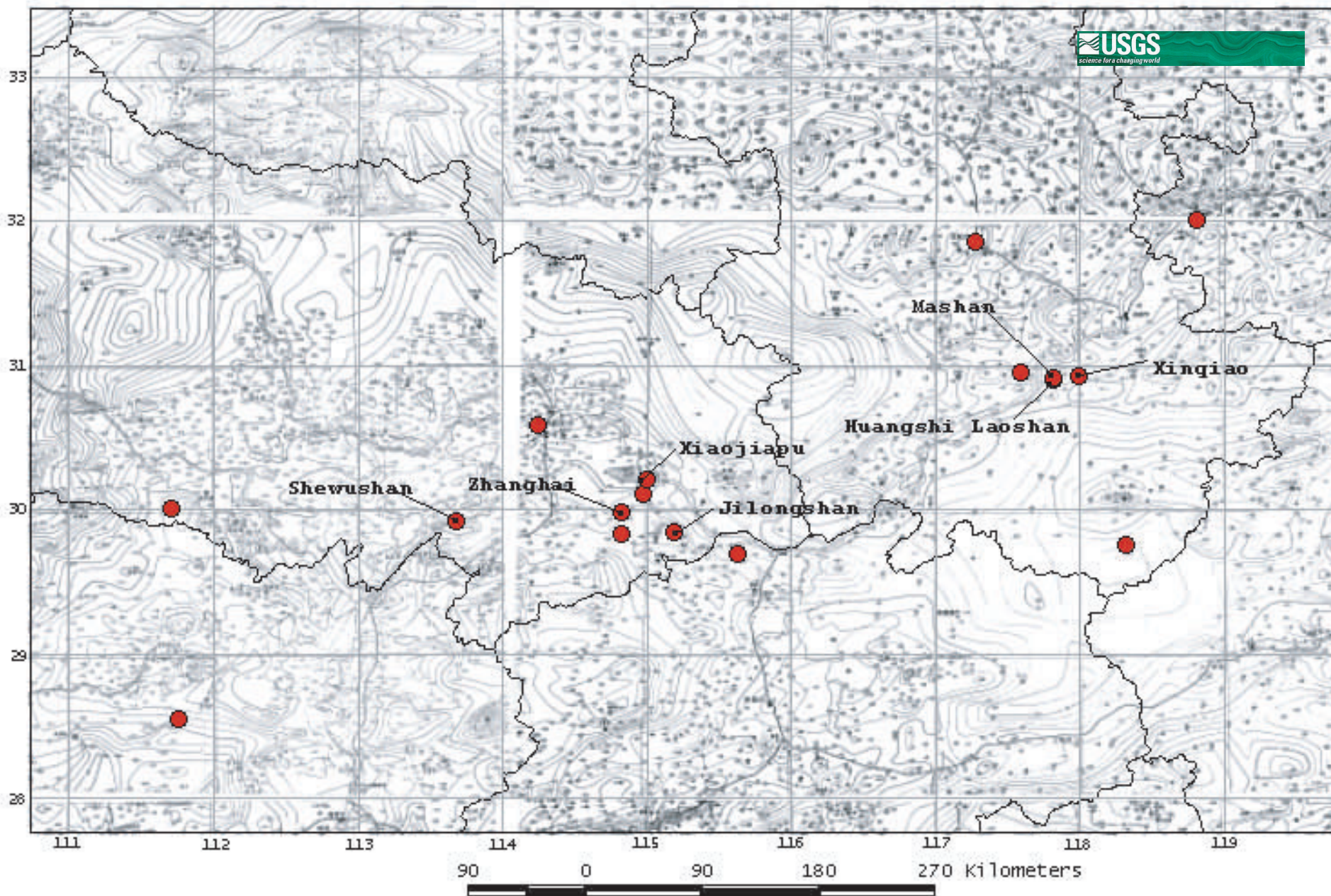


Figure II-K. Gravity mosaic contour map of the Middle-Lower Yangtze River area with labeled sedimentary rock-hosted Au deposits discussed in Chapter 5.



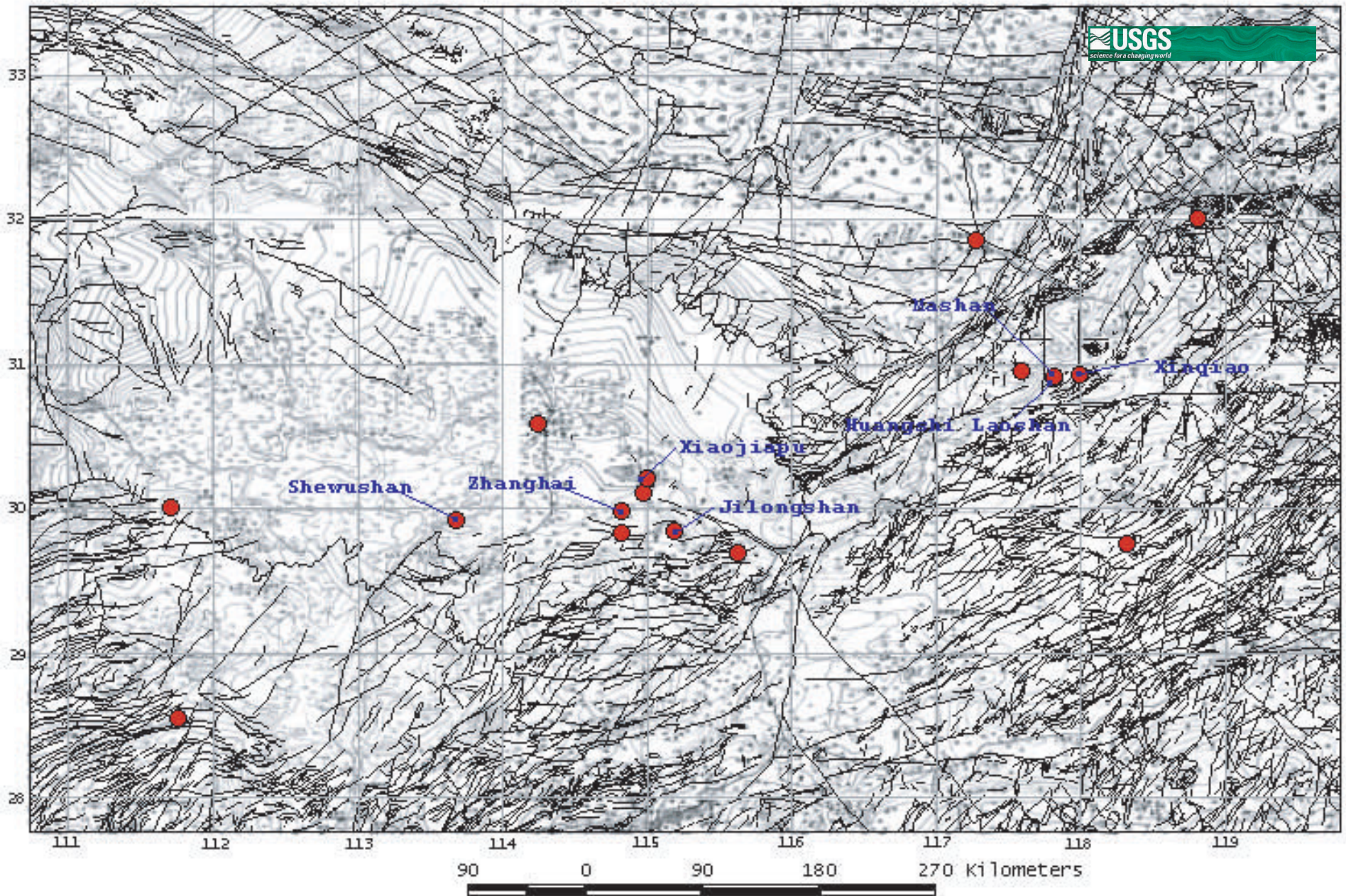


Figure II-L. Gravity mosaic contour map of the Middle-Lower Yangtze River area with labeled sedimentary rock-hosted Au deposits discussed in Chapter 5, showing major faults and shear zones.



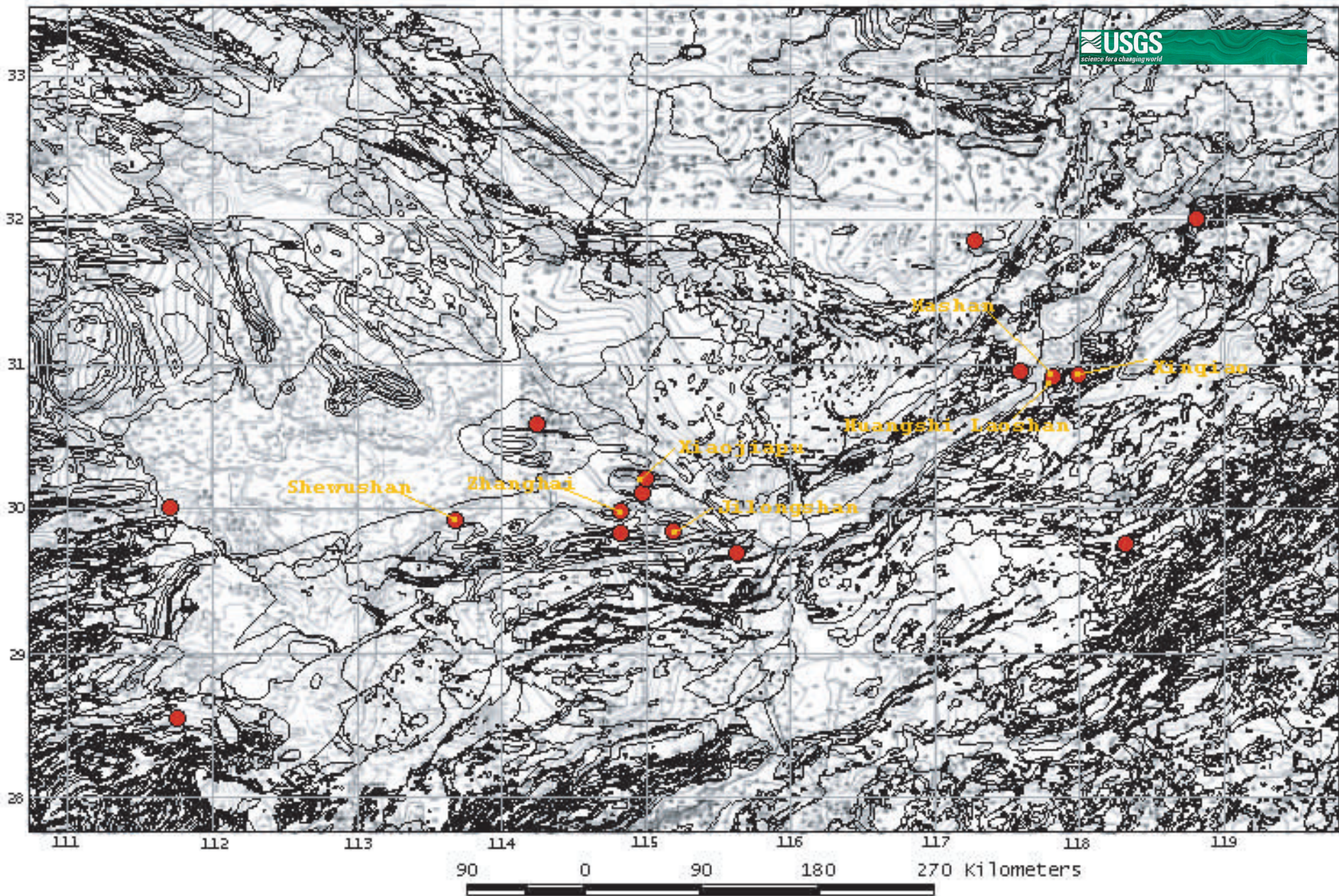


Figure II-M. Gravity mosaic contour map of the Middle-Lower Yangtze River area with labeled sedimentary rock-hosted Au deposits discussed in Chapter 5, showing major lithologic unit contacts.